



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Yasuyuki ARAI

Serial No. 09/847,308

Filed: May 3, 2001

For: METHOD OF MANUFACTURING A  
LIGHT EMITTING DEVICE

) Group Art Unit: 1792

) Examiner: David P. Turocy

) CERTIFICATE OF MAILING

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*Adrian Stamps*

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Honorable Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The present *Request* is filed pursuant to the provisions of the Pre-Appeal Brief Conference Pilot Program (1296 Off. Gaz. Pat. Office 67 (July 12, 2005); extended January 10, 2006).

The Final Official Action mailed November 14, 2007, and the Advisory Action mailed March 6, 2008, have been received and their contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to March 14, 2008. Also, filed concurrently herewith is a *Notice of Appeal*. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a *Notice of Appeal*. The review is requested for the following reasons.

At issue is whether there are sufficient reasons to combine Antoniadis, Nagashima and Onitsuka with any one or more of Burrows, Ardaillon and Wadley.

Antoniadis, Nagashima and Onitsuka appear to directly or at least peripherally relate to methods of forming electroluminescent (EL) devices. In contrast, Burrows is directed to forming salts for non-linear optical (NLO) devices such as modulators and frequency doublers (page 91), Ardaillon is directed to a method for coating medicament and foodstuff active principles (column 1, lines 8-11) and Wadley is directed to e-beam evaporation (abstract and background sections). The Final Official Action concedes that Antoniadis, Nagashima and Onitsuka teach operation in vacuum conditions and do not teach or suggest critical features of the present invention, including, for example, that evaporation takes place at atmospheric pressure (page 5, Paper No. 20071106). The Applicant respectfully submits that Burrows, Ardaillon and Wadley do not teach or suggest that their respective processes could or should be applied to a process for forming an EL device.

The Advisory Action asserts the following (page 2, Paper No. 20080227):

The applicant has argued against the Burrows reference, stating the examiner made mere conclusory statements, however, the examiner disagrees. Burrows clearly discloses organic material is known and suitable in the art to be evaporated at atmospheric pressure using resistive heating (page 93).

Regarding Burrows, the Applicant is arguing that the Official Action did not provide more than a conclusory statement in explaining why one of ordinary skill in the art at the time of the present invention would have had a reason to apply Burrows to the other prior art references of record. The statement referring to page 93 of Burrows simply appears to restate what Burrows teaches. It is not sufficient to merely point to Burrows and generally assert that it would have been obvious to combine Burrows with the other prior art references of record. Rather, in order to maintain a *prima facie* case of obviousness, the Official Action must set forth a reason why such combination would have been obvious. The Applicant respectfully submits that the Advisory Action does not set forth such reasoning.

The Advisory Action asserts the following (page 2, Paper No. 20080227):

The applicant has argued against the Burrows references, stating the reference is not related to method manufacturing a light emitting layer comprising organic electroluminescence material and is therefore not related to the process of the applicant. The examiner disagrees. Burrows is directed to vapor phase deposition of an organic material, similar to that as encompassed by the applicants process.

Although Burrows appears to disclose vapor phase epitaxy (VPE), Burrows discusses the use of VPE to grow films of "highly pure single crystals of salt" (page 92), which is not at all similar to the present invention. The Official Action has not demonstrated why one of ordinary skill in the art at the time of the present invention would have had a reason to apply a process used to form an organic salt to a process used to form a light-emitting device having an organic electroluminescence material.

The Advisory Action asserts the following (page 2, Paper No. 20080227):

The applicant has argued against the Ardaillon reference, stating the reference is not related to method manufacturing a light emitting layer comprising organic electroluminescence material and is therefore not related to the process of the applicant. Ardaillon is provided as a teaching that in evaporation of organic material is dependant on the temperature and pressure and one of ordinary skill in the art would recognize the adjustment of temperature and pressure in the evaporation of organic material to lead to predictable results.

While it is true that Ardaillon mentions removal of an organic solvent using evaporation, this evaporation process is part of "a method for coating, preferably by spraying, medicament and/or foodstuff active principles with an aqueous emulsion or suspension of one or more pH-sensitive polymers" (column 1, lines 8-11). The Official Action has not demonstrated why one of ordinary skill in the art at the time of the present invention would have had a reason to apply a process used to spray medicament or foodstuff active principles to a process used to form a light-emitting device having an organic electroluminescence material.

The Advisory Action asserts the following (pages 2-3, Paper No. 20080227):

The applicant argues against the Wadley reference, stating the reference is directed to e-beam evaporation using a water-cooled crucible; however, the examiner disagrees that the teachings of Wadley are limited

to the narrow interpretation. Wadley clearly discloses that evaporation via resistive heating is operable for materials that have a low melting point (column 7, lines 24-35).

Wadley does not teach that evaporation via resistive heating is operable for all processes that might use materials that have a low melting point. Rather, Wadley teaches that that evaporation via resistive heating may be used in a process where an electron beam gun is used as the heating source, i.e. e-beam evaporation using a continuously rod-fed, water cooled crucible. The Official Action has not demonstrated why one of ordinary skill in the art at the time of the present invention would have had a reason to apply a process used in e-beam evaporation to a process used to form a light-emitting device having an organic electroluminescence material.

The Advisory Action implies that the Applicant has argued against the references individually (page 3, Paper No. 20080227). However, the Applicant is arguing that the Official Action has failed to demonstrate why one of ordinary skill in the art at the time of the present invention would have had a reason to combine references such as Antoniadis, Nagashima and Onitsuka, which are in the field of EL devices, with Burrows, Ardaillon and Wadley, which are not in the field of EL devices and which do not teach that their processes could or should be used in a method of forming a light-emitting device having an organic electroluminescence material. These arguments do not constitute an argument against the references individually.

The Advisory Action continues to take the position that it would have been obvious to use the various teachings of Burrows, Ardaillon and Wadley so long as the process involves evaporation of an "organic material" (pages 3-4, Paper No. 20080227). While it is true that Burrows, Ardaillon and Wadley happen to disclose methods that relate generally to organic materials, such reasoning does not constitute a sufficient nexus between these references and Antoniadis, Nagashima and Onitsuka. Aside from arguing that these references relate generally to evaporation of organic materials, the Advisory Action does not make clear how the processes of Burrows, Ardaillon and Wadley are reasonably pertinent to the particular problem with which the inventor is


concerned, and how these processes would have logically commended themselves to an inventor's attention in considering problems relating to the formation of a light-emitting device having an organic electroluminescence material.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine Antoniadis, Nagashima and Onitsuka with Burrows, Ardaillon and Wadley or to combine reference teachings to achieve the claimed invention.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested. Further, since the Official Action has not presented a *prima facie* case of obviousness, the Applicant respectfully requests that the present application be allowed on the existing claims pursuant to the provisions of the Pre-Appeal Brief Conference Pilot Program (1296 Off. Gaz. Pat. Office 67 (July 12, 2005); extended January 10, 2006).

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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Eric J. Robinson  
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